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AEG
Fitted Fan
Steam Cooking oven

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Safety instructions

Attention: In case of any interventions with this appliance pay attention to the safety specifications according to DIN/VDE 0701 (related to repairs) resp. VDE 0700/ICE 65 (related to appliances)!

Components according to IEC resp. VDE guidelines! In case of an exchange use only parts with the same specifications.

In case of controls which are provided with MOS modules, use only parts with the same specifications.

Pay attention to the MOS instructions when handling MOS components!

Mechanical repairs resp. inspections of mechanical components may only be made in a voltage-free condition.

1. General features

1.1 Model Designation / PNCs

Model	PNC new	Countries	Voltage
B8920-1-M	941 047 080	D; A	230 V
B8920-1-A	941 047 081	D; A	230 V
B8920-1-M	941 047 082	Europe North	230 V
B8920-1-A	941 047 083	Europe North	230 V
B8920-1-M	941 047 084	GB; SAF	230-240 V
B8920-1-A	941 047 085	GB; SAF	230-240 V
B8920-1-M	941 047 086	Europe Central/ South	230 V
B8920-1-A	941 047 087	Europe Central/ South	230 V
B8924-1-M	941 047 088	CH	400V
B8924-1-A	941 047 089	CH	400V
B8920-1-M	941 047 097	Europe East	230 V

2. Appliance data

2.1 Dimensions and Power

Dimensions/ Oven Dimensions

Height 59,4 cm/ 31 cm
Width 59,2 cm/ 41 cm
Depth 56,7 cm/ 41 cm

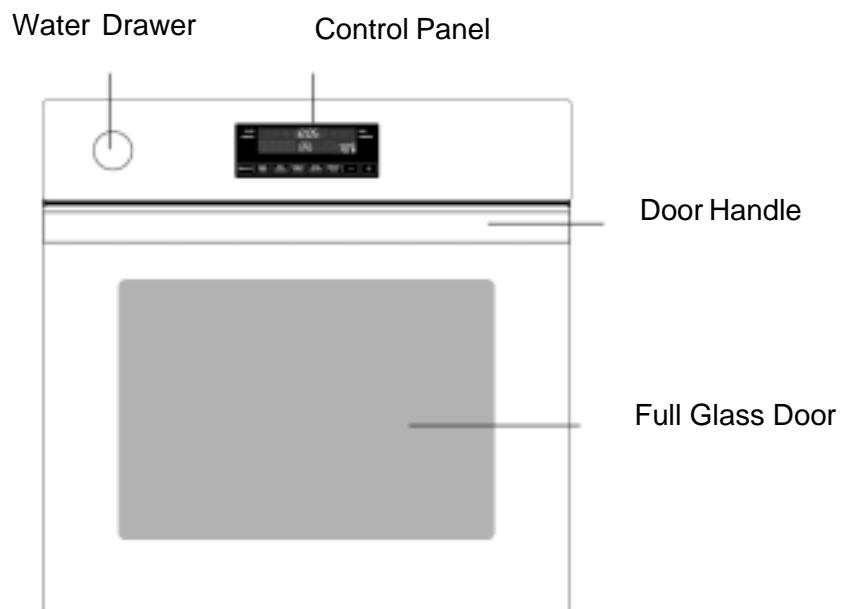
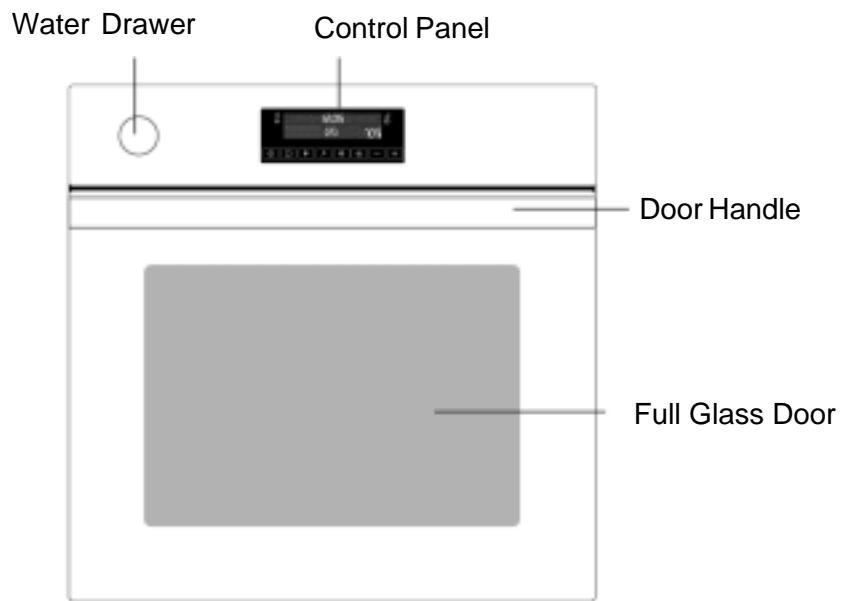
Total Weight 44,0 kg
Volume Muffle 52,0 l

Power Input

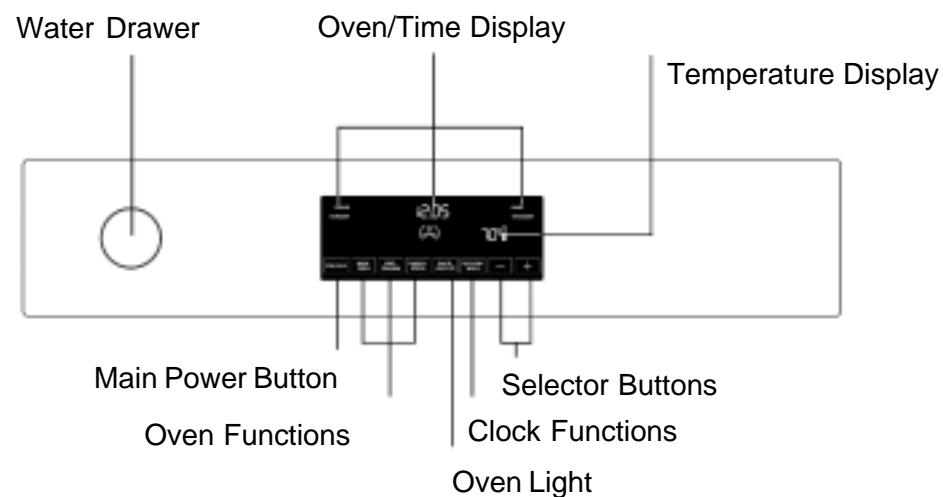
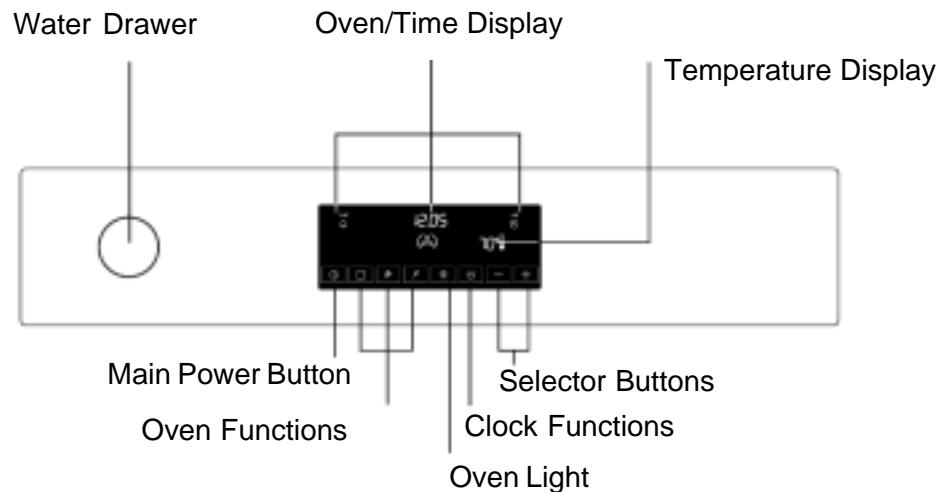
Top element 1000 W
Bottom element 1000 W
Ring heating element 2400 W
Steam generator 1800 W
Small-Surface Grill 1900 W
Large-Surface Grill 2900 W
Turbo-Grill 1800 W
Pizza setting 3400 W
Lighting 2x25 W

3. Controls

3.1 General Overview



3.2 Control Panel

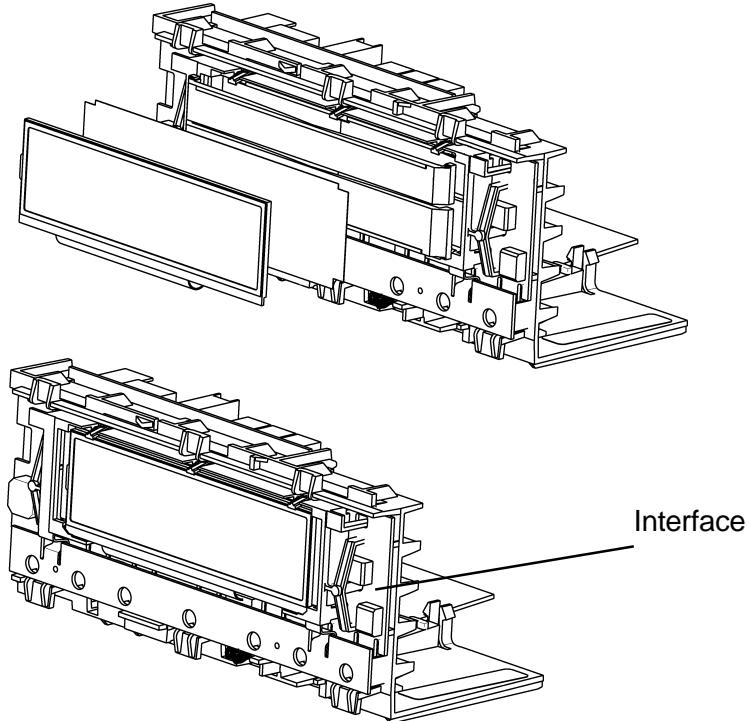


4. Component data

4.1 Prisma High Electronic Oven Control System

Interface

The interface includes components for the entry and display of oven functions and oven temperature as well as clock functions.

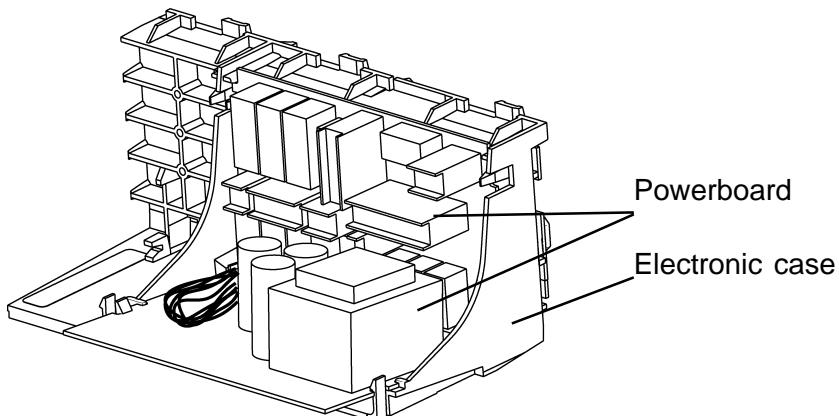


Powerboard

The power boards accommodate the components to control the heaters, hot air blowers and cooling fan.

In addition, the primary side of the power pack includes the fuse (sluggish, 100 mA) of the appliance.

If this fuse is defective, the appliance does not function and the displays and lighting system are out of service.

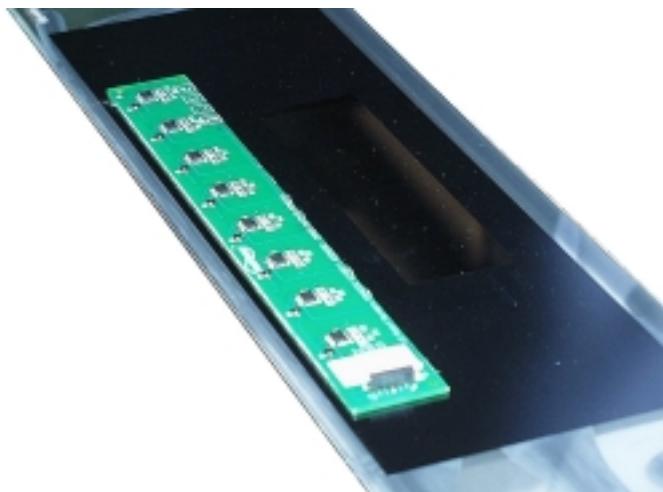


The oven control system after installation.



The appropriate Touch Sensor Keys for entries are firmly affixed to the switch panel back.

Keep this in mind especially during the removal of the switch panel to avoid damages.

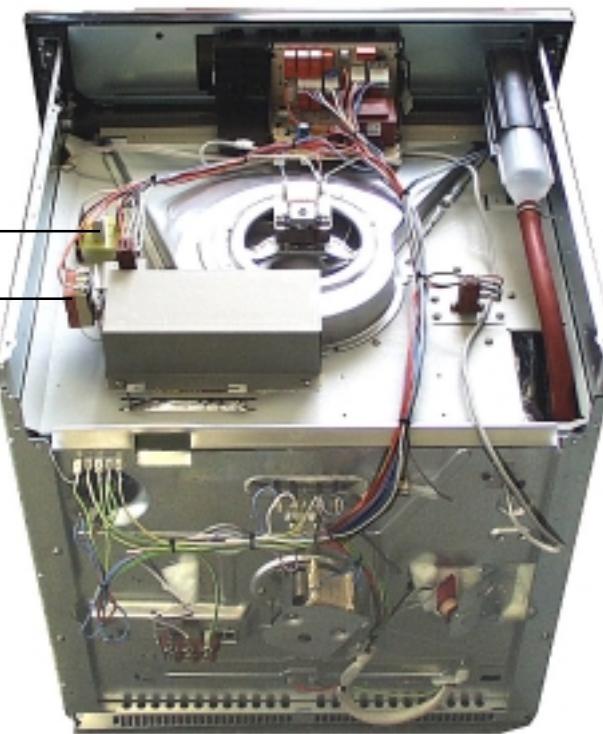
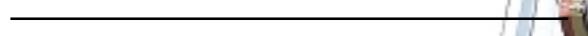


4.2 Steam Thermostat / Steam Relay

Steam Thermostat

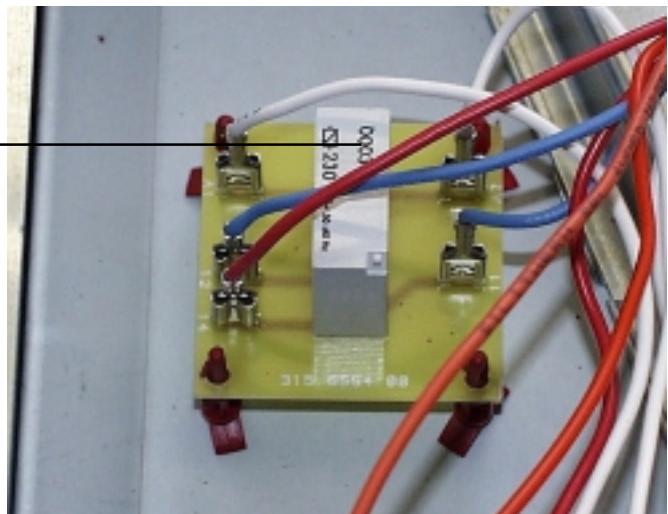


Steam Relay

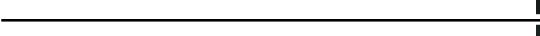


Steam Relay

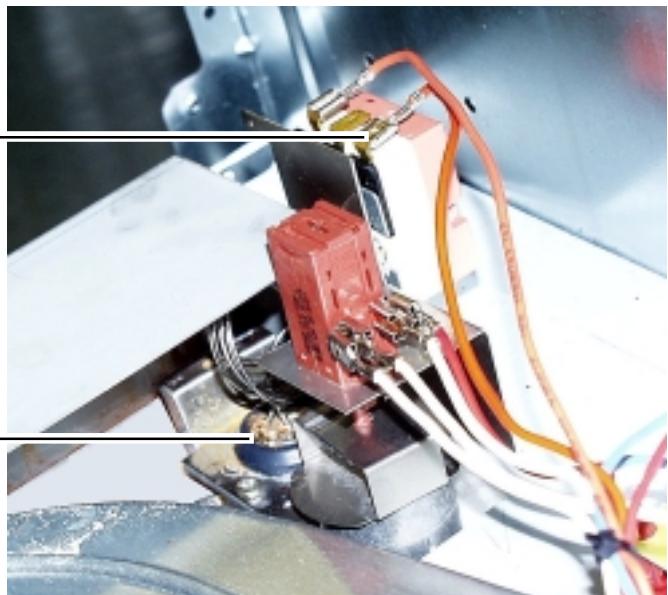
Designation „rt“ in the circuit diagram



Thermostat

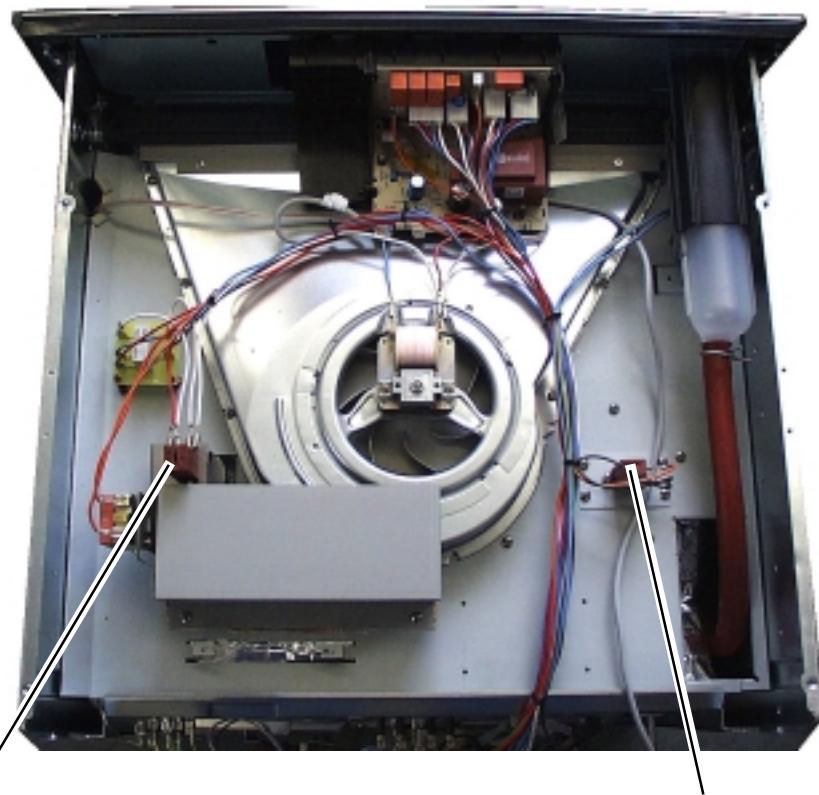


Thermostat Probe



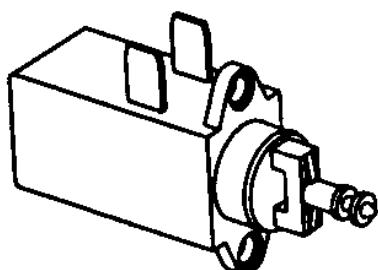
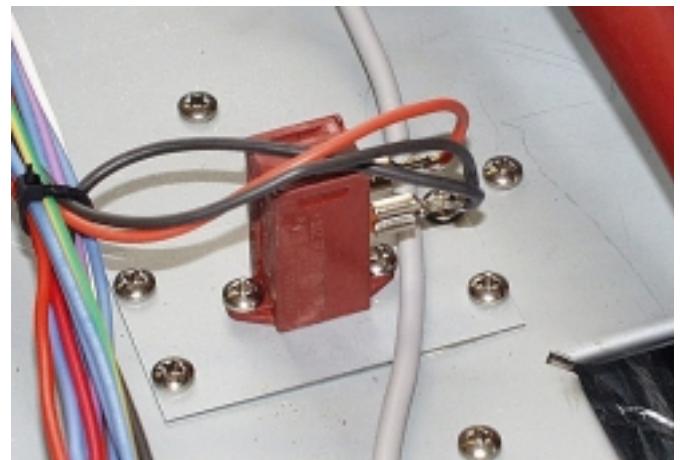
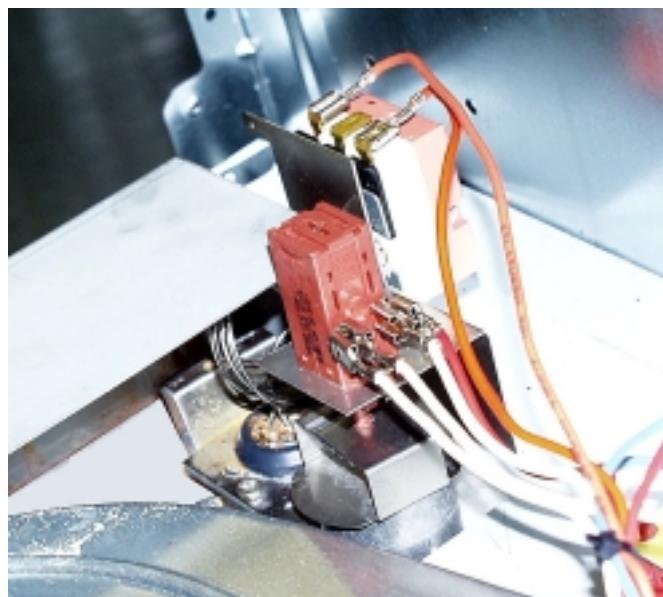
4.3 Actuators

Actuators open and close, depending on the function settings, the steam exhaust valve and the ventilator valve (see table below).



Steam exhaust valve actuator A2
(A2 = designation in the switch documentation)

ventilator valve actuator A1
(A1 = designation in the switch documentation)



	Steam exhaust valve	ventilator valve
Steam cooking	closed	closed
Steam exhaust	open	open
conventional	closed	open

4.4 Temperature sensor PT 500 / Buzzer / Safety thermostat

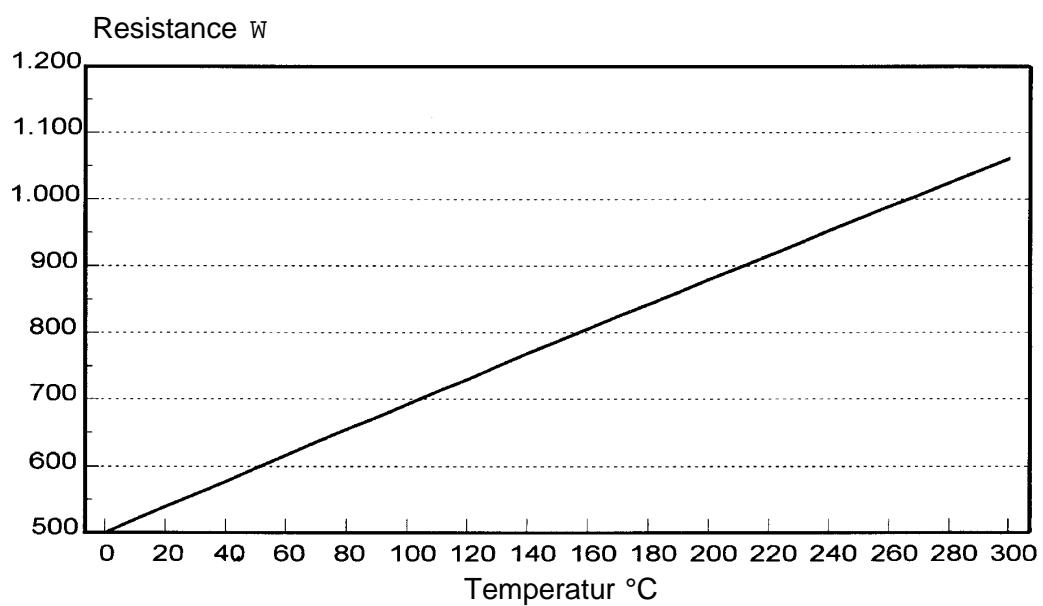
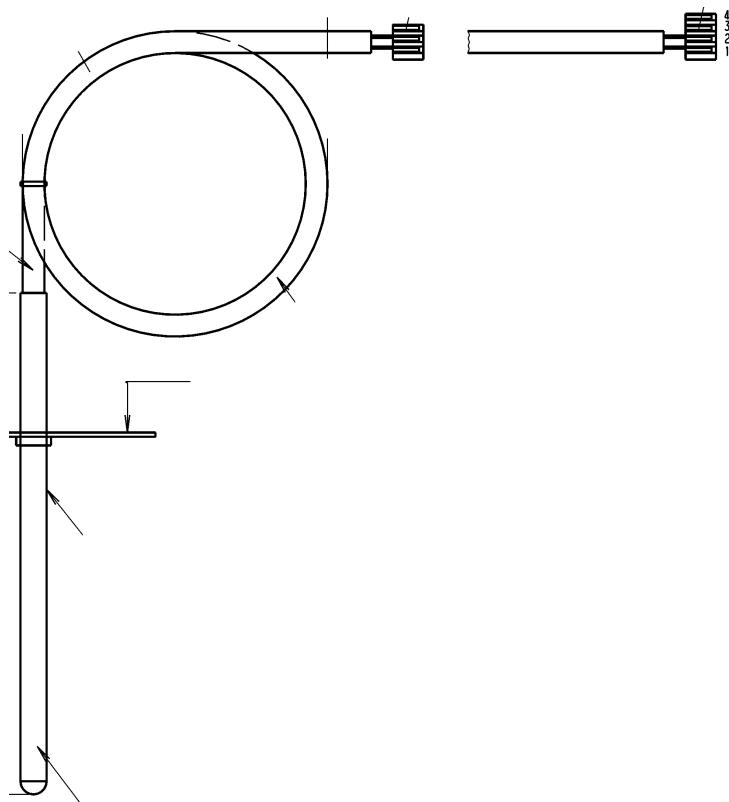


Fig. Electrical resistance of sensor depending on the ambient temperature

4.5 Steam generator/ Steam covering / Fan covering



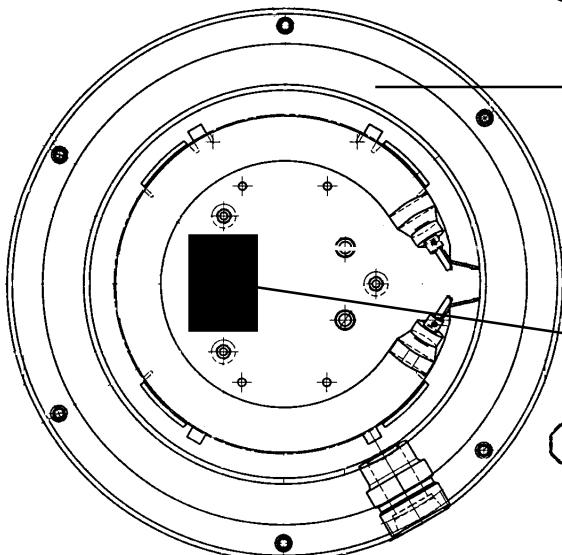
Fan covering

Material: chromed brass

Steam generator covering

Material: chrome steel

The covering prevents contamination of the steam generator



Steam generator

Material: stainless steel

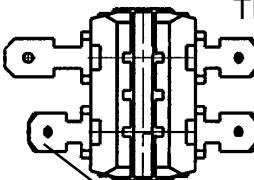
0.7 L

Electrical Power: 1800 W

Support for 2 Thermal Sensors (Klixons)

TR1/ F2: 120 °C signal sound No water

TR2/ F2: 200 °C disconnection of steam generator



200 °C Klixon

The 200 °C Klixon can be recognized by the plug-lug bent up on one side

5. Operation of the setting and operating units

5.1 Setting the clock

The oven only operates when the clock has been set.

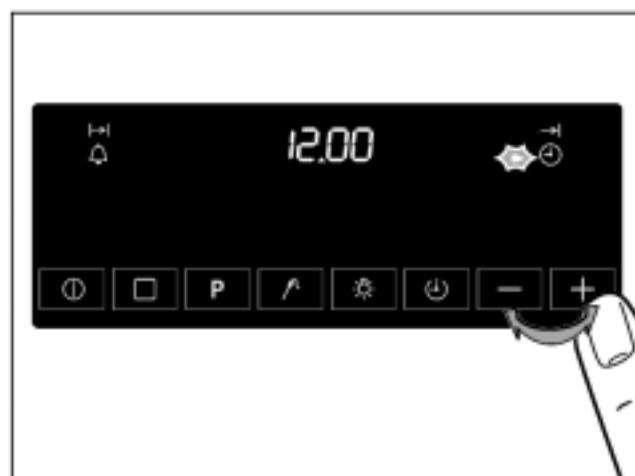
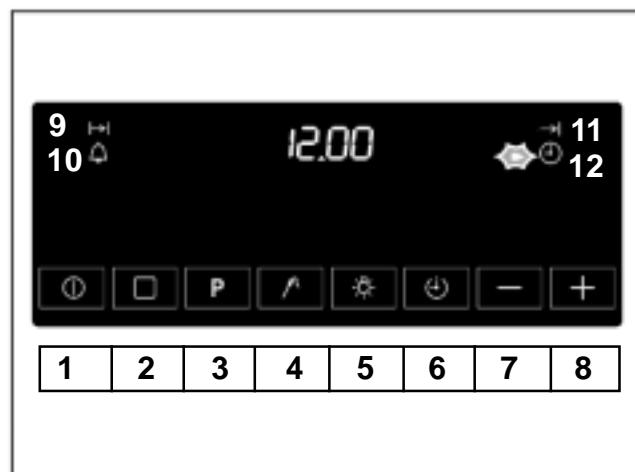
After electrical connection, or a power failure, the "Set Clock" arrow flashes.

Set the current time by pressing the + or - buttons.

5 Wait for a few seconds.

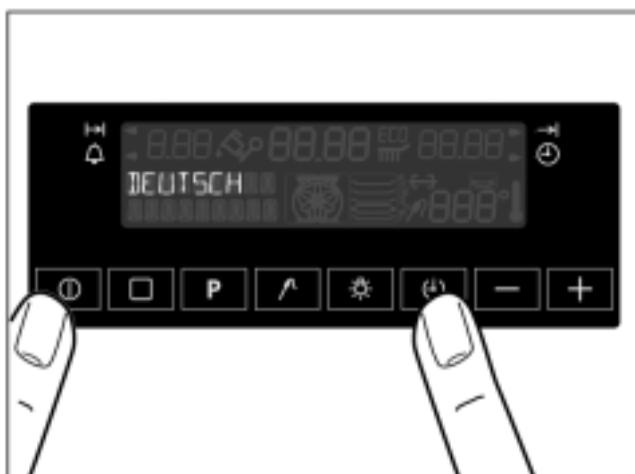
The flashing stops and the clock shows the time you have set.

The appliance is now ready for use.



5.2 Setting the display language

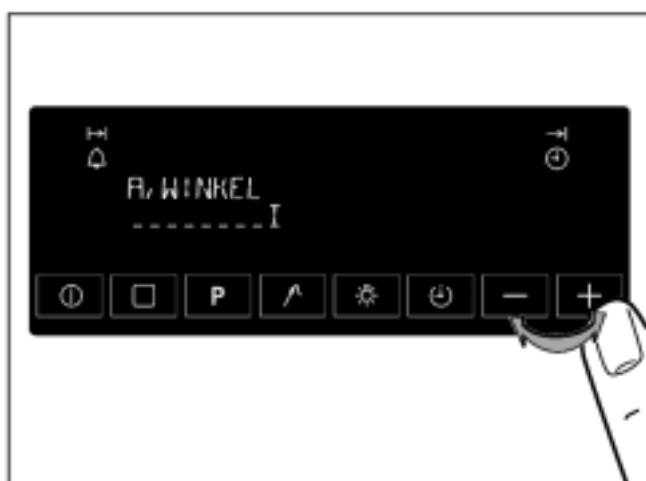
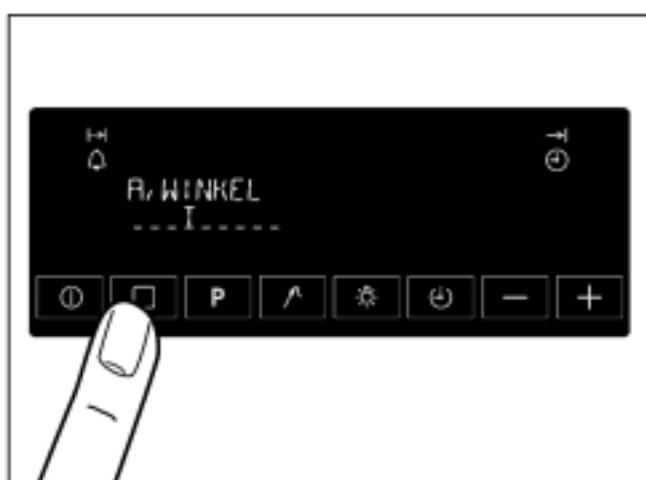
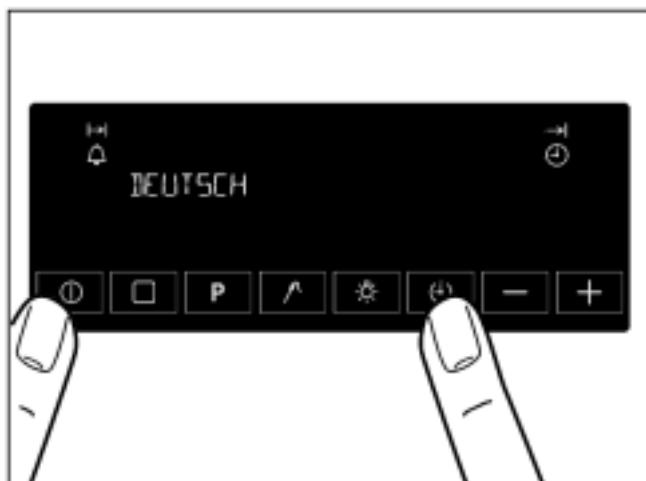
1. Switch on the appliance by pressing the main Power button (1).
2. Press the main Power (1) and the Clock Functions (6) buttons at the same time.
3. Select one of the available languages using the + and - buttons.
4. Press the main Power (1) and the Clock Functions (6) buttons at the same time, to store the selected language.



5.3 Set the display brightness

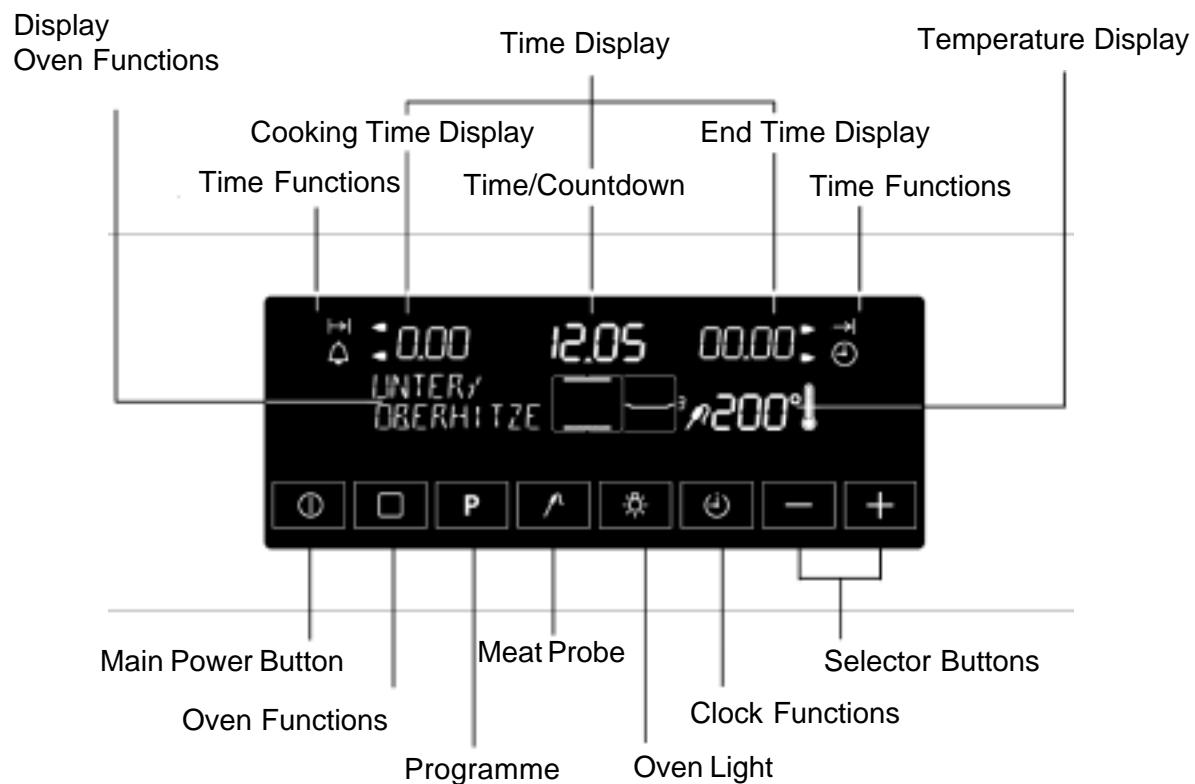
The brightness of the display can be adjusted for better readability on ovens fitted at high positions.

1. Switch on the appliance by pressing the main Power button (1).
2. Press the main Power (1) and the Clock Functions (6) buttons at the same time
3. Press the Oven Functions (2) button .
4. Set the brightness using the + or - buttons.
5. Press the main Power (1) and the Clock Functions (6) buttons at the same time, to store the brightness setting.



5.4 Using the Oven

5.4.1 The Electronic Oven Control



General Instructions

- Always switch the appliance on first by pressing the main power switch .
- When the selected function is lit, the oven begins to heat up or the time set begins to count down.
- Switch on the oven light using the button.
- Switch the appliance off by pressing the main power switch .
- When the selected temperature is reached, an audible signal sounds.

5.4.2 Oven Functions

Vigorous Steam Cooking

Fixed temperature setting: 96°C.

Steam generator and fan are on.

Steam Interval

Suggested temperature: 180 °C.

Hot air and steam generator operate alternately.

Fan Cooking

Suggested temperature: 150 °C.

The fan and the rear heating element are on.

Pizza Setting

Suggested temperature: 200 °C.

Bottom heat, rear heating element, and fan are on.

Rotitherm

Recommended temperature: 180°C

The grill element and top element operate alternatively with the fan.

Dual Grill

Suggested temperature: 230°C

Top heat and grill heating elements are on.

Single Grill

Suggested temperature: 230 °C.

The grill heating element is on.

Top/Bottom Heat (Conventional)

Suggested temperature: 200°C

The Top and Bottom Heat heating elements are on.

Defrost/ Dry

Suggested temperature: 30°C.

Bottom heating element and fan are on.

Low Temperature Cooking

Temperature setting: 120/80 °C.

Rear heating element and fan are on.

5.4.3 Switching the Oven On and Off

Setting oven functions

1. Switch on the appliance by pressing the button (1).
2. Press the Oven Function button (2) as many times as necessary until the desired oven function appears.
 - The suggested temperature appears on the temperature display.
 - If the suggested temperature is not changed within about 5 seconds, the oven begins to heat.

Changing the oven temperature

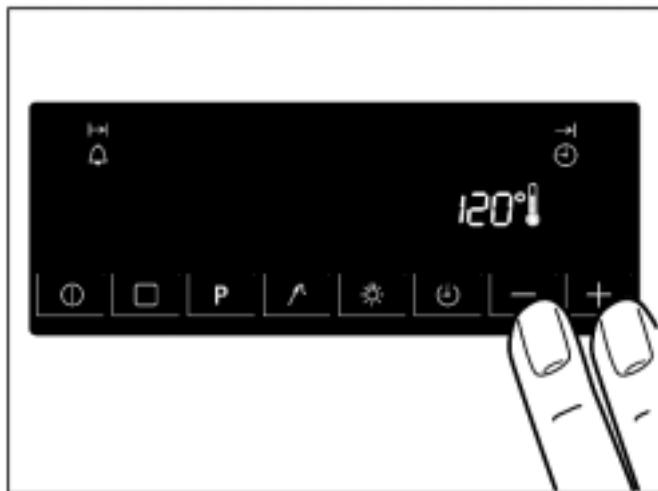
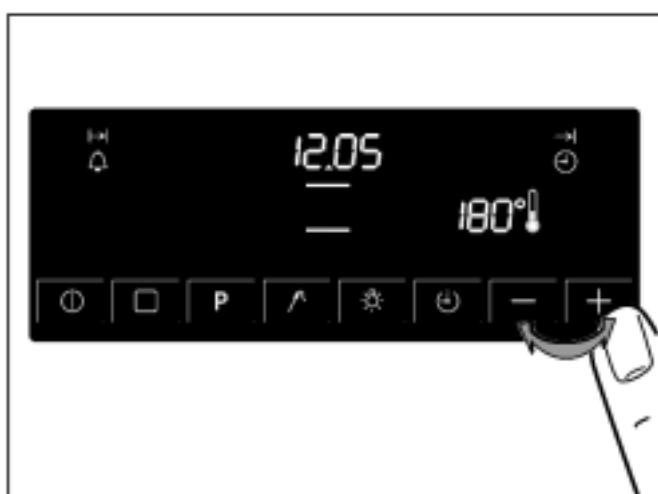
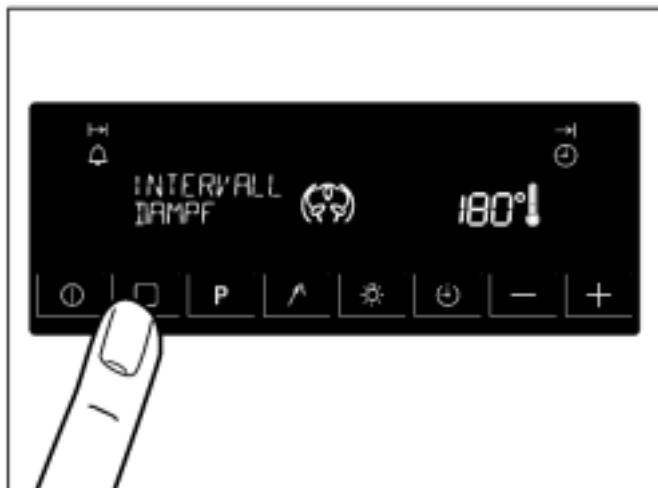
Press the + or - button, to raise or lower the temperature. The temperature setting changes in steps of 5 °C.

Thermometer Symbol

- The thermometer symbol rises slowly, indicating the degree to which the oven is currently heated.
- The three parts of the thermometer symbol flash one after the other, indicating that Fast Warm Up is in operation.

Checking the temperature

Press the + and - buttons at the same time. The present oven temperature appears on the temperature indicator.



Changing the Oven Function

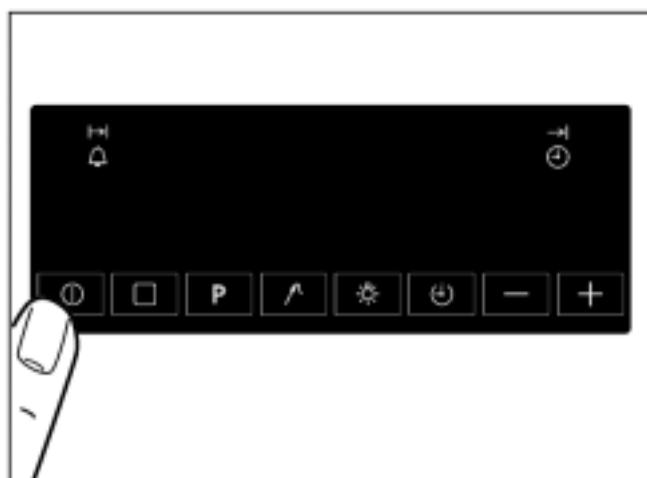
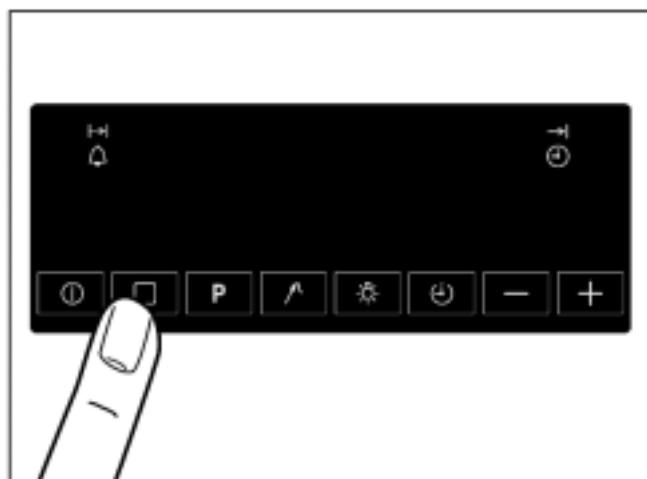
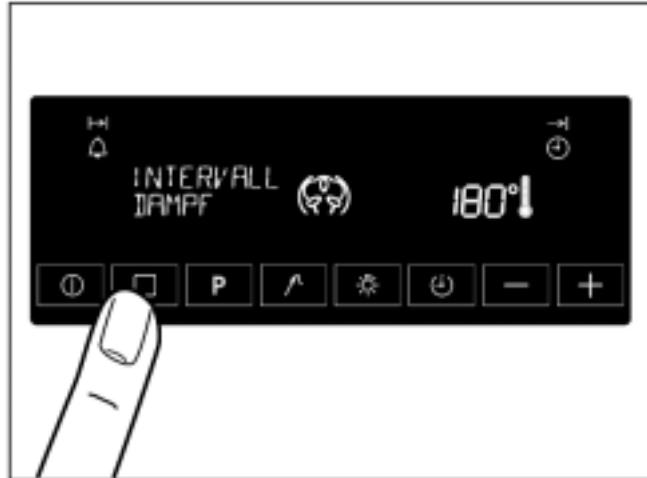
Press the Oven Function button (2) as often as necessary, until the desired function appears.

Switching the Oven Function off

To switch off the oven, press the Oven Function button (2) as often as necessary, until no oven function appears.

Switching the oven off

Switch off the appliance by pressing the button (1).



5.4.4 Steam Cooking Functions

Important: The steam cooking functions must always be set in conjunction with the clock functions Cook Time (9) or End Time (11) (see chapter Clock Functions Cook Time and End Time).

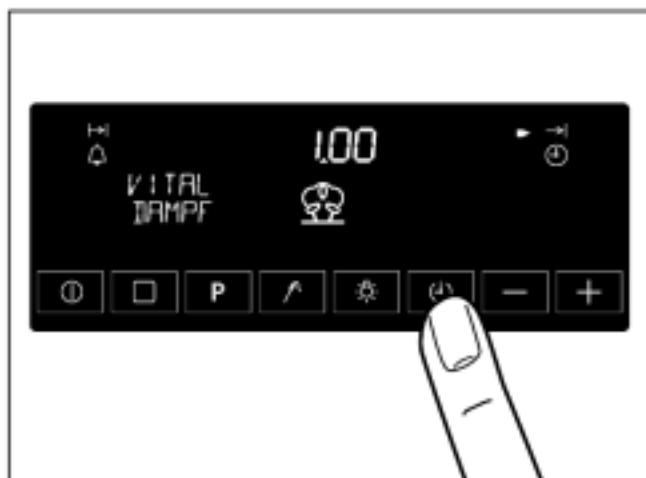
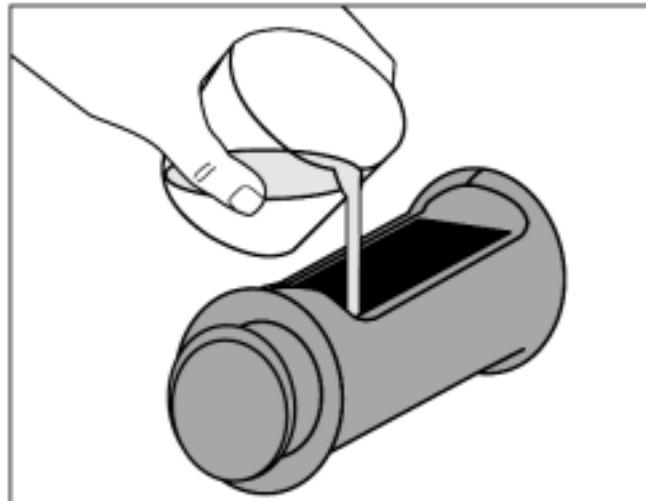
Important: Only water can be used as liquid. A buzzing sound is heard when the water has been used up. When more water is added, the buzzing sound is switched off.

To prevent limescale forming, only use decalcified water, for example, from a water filter.

Because of the automatic steaming dispersal period of approx. 5 minutes at the end of the cooking time and the heating up time of approx. 2 minutes, settings of less than 10 minutes have little effect. During steam dispersal, the oven door may get slightly steamed up. Steam will also escape when the door is opened. The slight condensation on the control panel will quickly evaporate.

Vigorous Steam

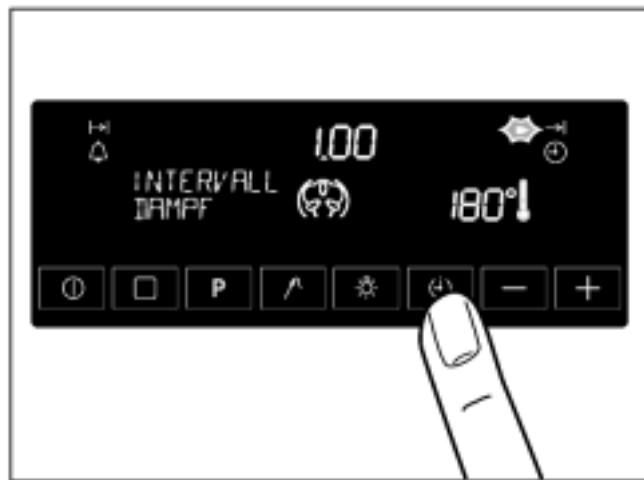
1. Water (approx. 700 ml) is not poured directly into the steam generator, but **into the water drawer** in the control panel. The water supply lasts for approx. 30 minutes.
2. Switch the oven on using the main power switch (1).
3. Using the Oven Function button (2) select the Vigorous Steam function.
4. Using the clock function buttons (6) select Cook Time (9) or End Time (11) and using the + or - buttons, set the desired cooking time or switch-off time. After about 2 minutes, the first steam appears. A single audible signal indicates when the cooking temperature of around 96°C is reached. A triple signal is sounded at the end of cooking time.
5. Stop the signal and switch off the oven by pressing the main power switch (1). After the oven has cooled down, soak up any remaining water from the steam generator using a sponge and, if necessary, wipe out with a little vinegar. Leave the door open to let the oven dry completely.



Interval Steam

The continual change from fan to steam takes place automatically.

1. The water (about 250 ml) is not poured directly into the steam generator, but **into the water drawer** in the control panel. The water supply lasts for approx. 60 minutes.
2. Switch the oven on using the main power switch (1).
3. Using the Oven Function button , select the Interval Steam function and using the button or the button set the desired temperature.
4. Using the clock function buttons (6) select Cook Time (9) or End Time(11) and using the + or - buttons, set the desired cooking time or switch-off time. Then proceed as for Vigorous Steam Cooking.

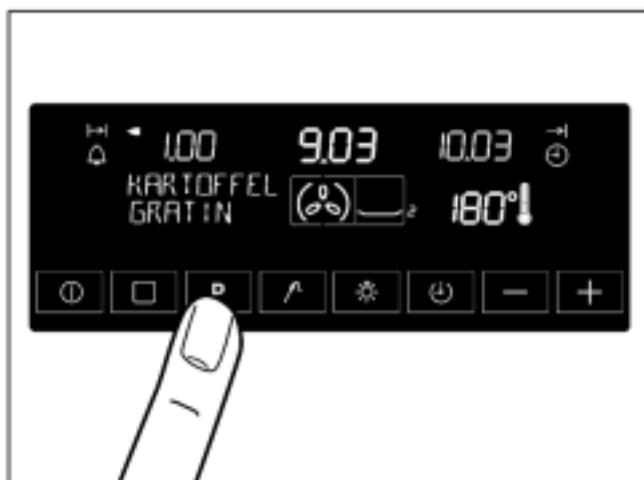


5.4.5 Additional Functions

Baking and Roasting Programmes

Selecting baking and roasting programmes

1. Press the Programme button (3) as often as necessary, until the desired baking/roasting programme appears.



- In the function display field the symbols for the oven function and the recommended oven shelf appear.
 - The suggested temperature appears on the temperature display.
 - The cooking time and the end time appear in the clock display.
 - After about 5 seconds, the oven is switched on.
 - Before the programme ends, an audible signal sounds.
2. Check the cooking at this point.
 - When the cooking time is completed, an audible signal sounds. "0:00" flashes in the clock display.
 3. The signal can be stopped by pressing any button.

Delaying the start

The cooking time can be delayed (see Clock Functions End Time). The clock function End Time can be set, if the programme has been running for less than two minutes.

Ending the cooking time early

Press the Programme button (3) as often as necessary until no baking/ roasting programme is displayed.

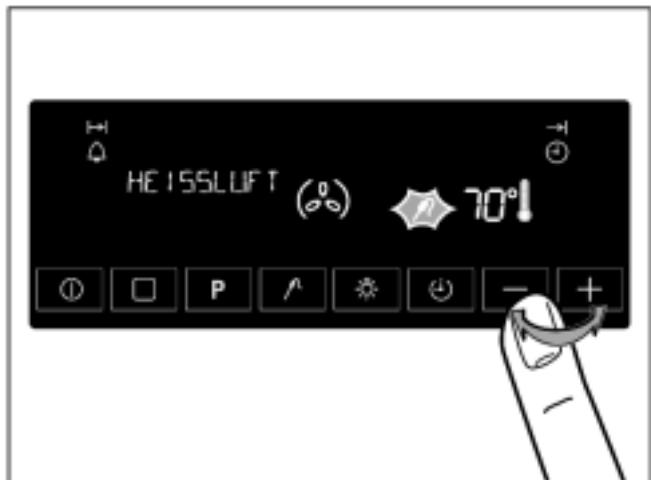
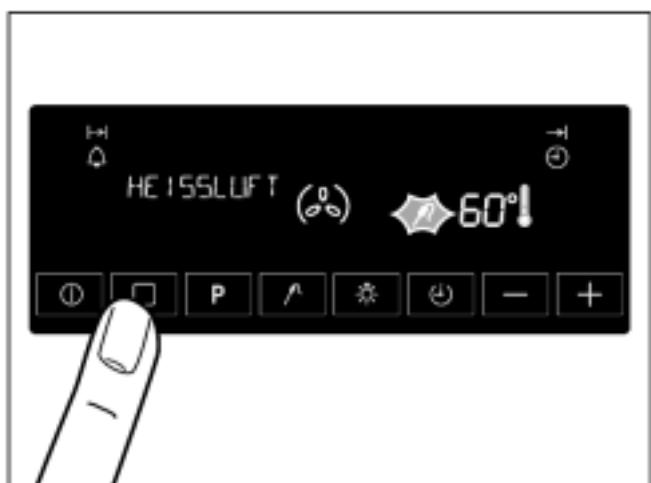
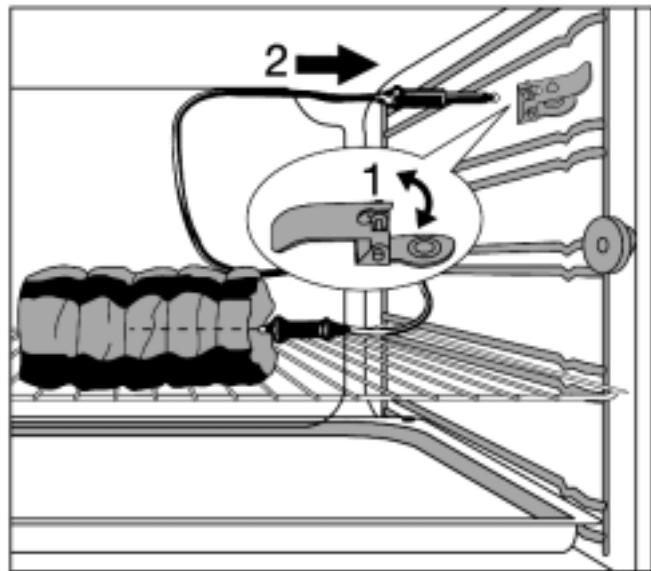
Meat Probe

Ensures that the oven switches itself off as soon as the temperature at the centre of a roast reaches a set temperature. The meat probe is best used together with the Conventional (Top/Bot-tom heating), Fan Cooking and Rotitherm functions.

There are two temperatures to be set:

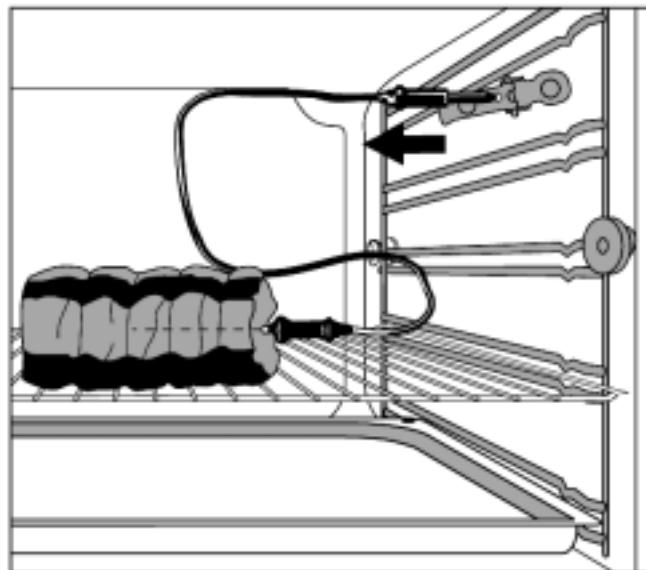
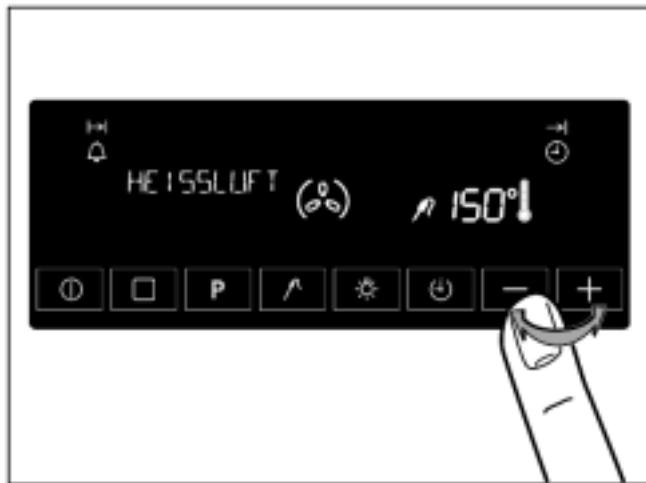
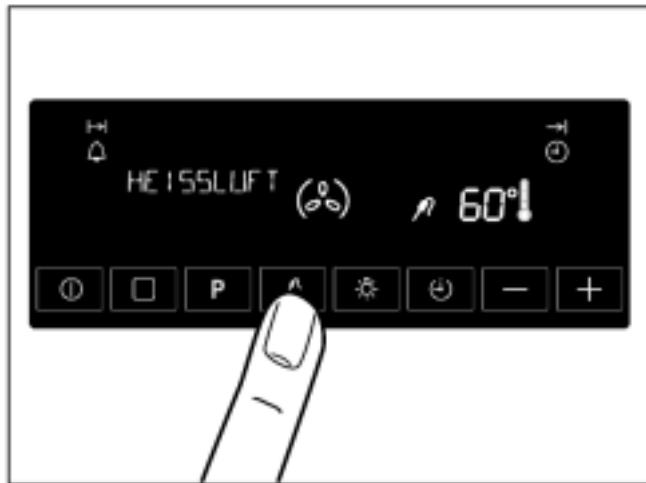
- Oven temperature
- Core temperature

1. Push the tip of the meat probe in as fully as possible, so that the tip is in the centre of the meat.
2. Insert the meat probe plug into the socket on the side wall of the oven, pushing it in fully.
3. Press the Oven Function button (2) as often as necessary, until the de-sired oven function appears.
4. Start setting the desired core temperature within 5 seconds, using the + or - buttons. The display changes to the current core temperature.



- The core temperature is displayed from 30°C.
- Should the current core temperature already be being displayed, before the desired core temperature is set, press the meat probe button (4) and carry out the setting process.
- To set the oven temperature, press the meat probe button (4) twice.
- Start setting the desired oven temperature within 5 seconds, using the + or - buttons.
- As soon as the core temperature set is reached, an audible signal sounds and the oven switches itself off automatically.

5. To switch off the signal, press any button.
6. Remove the meat probe's plug from the socket and take the meat out of the oven with the meat probe still inserted.
7. If applicable, switch off the appliance.



Checking or changing the core temperature

- By pressing the meat probe button, you can change between the current and the set core temperatures and the set oven temperature.
- If necessary, change the temperature using the + or - buttons.

The automatic oven switch off function cannot be used in conjunction with the oven function Low Temperature Cooking.

5.4.6 Clock Functions

Countdown

To set a countdown. A signal sounds after the time has elapsed. This function does not affect the functioning of the oven.

Cook time

To set how long the oven is to be in use.

End time

To set when the oven is to switch off again.

Time

To set, change or check the time.

General hints

- When a clock function has been selected, the related arrow flashes for around 5 seconds. During this time, the desired setting can be made using the or buttons.
- After the desired time has been set, the arrow flashes again for around 5 seconds. The arrow then remains lit. The set time begins to run.

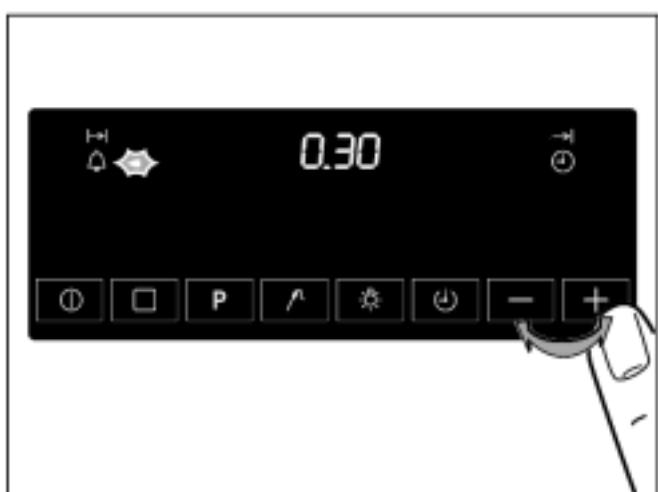
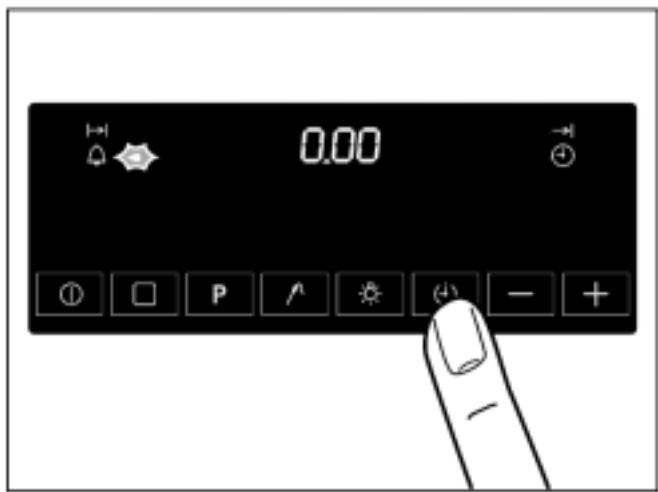
Countdown (9)

1. Press the clock functions button (6) as often as necessary, till the Countdown arrow flashes.
2. Use the + or - buttons to set the desired length of time (99 minutes maximum).

The time remaining appears after about 5 seconds. The Countdown arrow (10) is lit.

When the set time has elapsed, a signal is sounded for 2 minutes. The "0.00" indication, and the Countdown arrow (10) appear flashing.

To stop the signal:
Press any of the buttons.

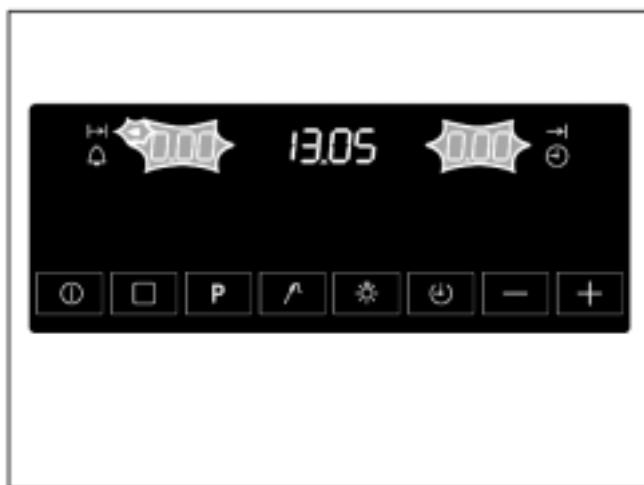
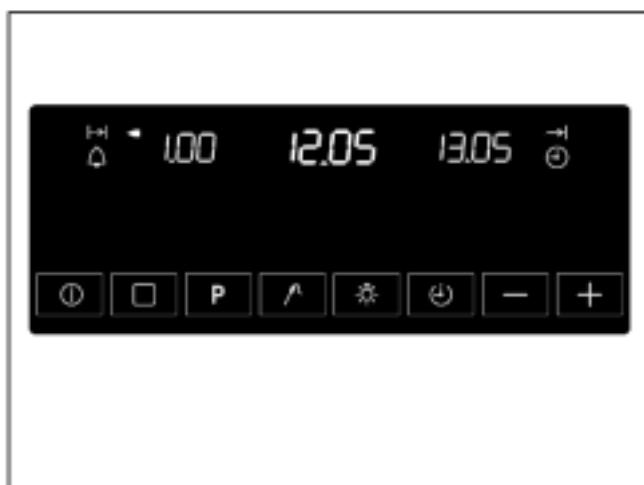
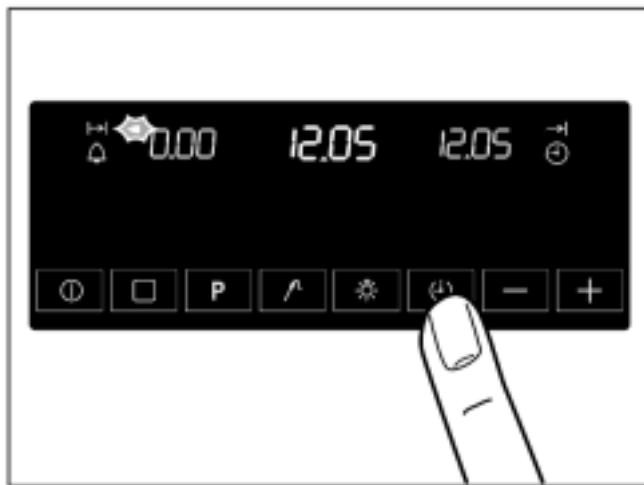


Cook Time (9)

1. Select Oven Function and Temperature.
2. Press the clock functions button (6) as often as necessary, until the Cook Time arrow (9) flashes.
3. Set the desired cooking time using the + or - buttons. The Cook Time arrow is lit.

When the set time has elapsed, a signal sounds for 2 minutes. The oven switches itself off. The "0.00" indication and the Cook Time arrow appear flashing.

To stop the signal:
Press any of the buttons.

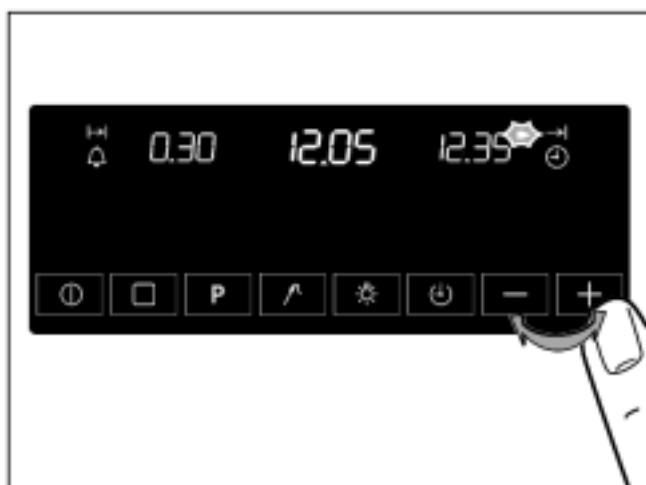
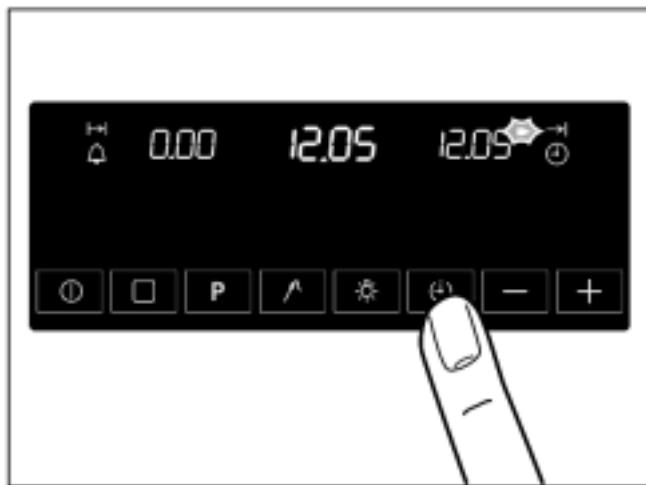


End (11)

1. Select an oven function and temperature.
2. Press the clock functions button (6) as often as necessary, until the End arrow appears flashing.
3. Set the desired switch-off time using the + or - buttons. The End arrow is lit.

When the set time has elapsed, a signal sounds for 2 minutes. The oven switches itself off. The "0.00" indication and the End arrow appear flashing.

To stop the signal:
Press any of the buttons.



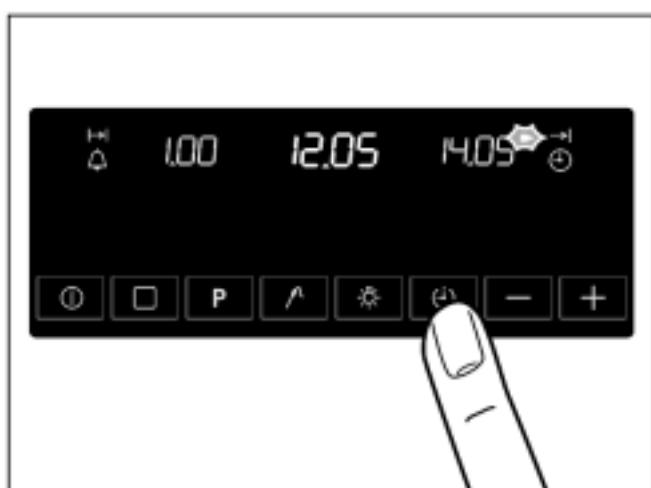
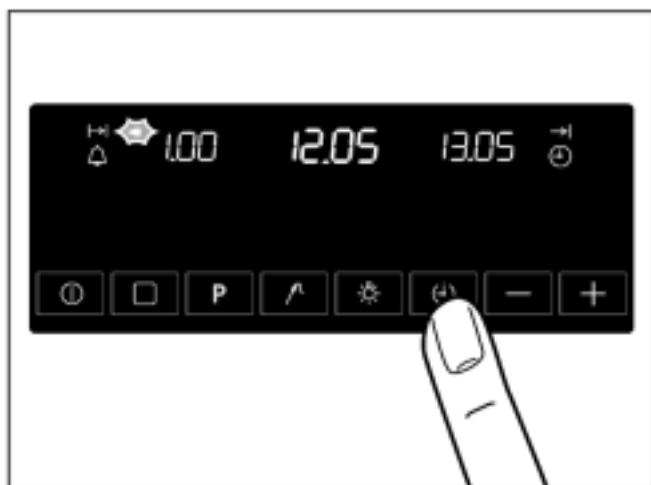
Combining the Cook Time (9) and End functions (11)

The Cook Time and End functions can be used at the same time, to switch the oven on and off at a later time.

1. Select an oven function and temperature.
2. Using the Cook Time function (9), set the time necessary to cook the item concerned. For example, 1 hour.
3. Using the End function (11), set the time at which the item concerned should be ready. For example, 14:05.

The Cook Time (9) and End (11) arrows are lit. The oven switches on automatically at the required time. In this example, 13:05.

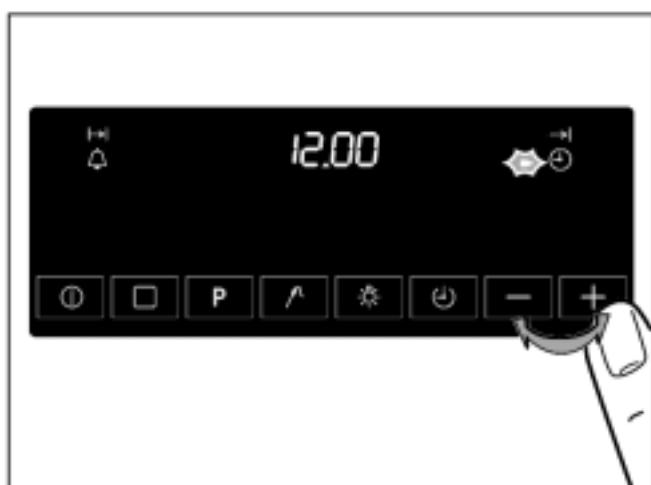
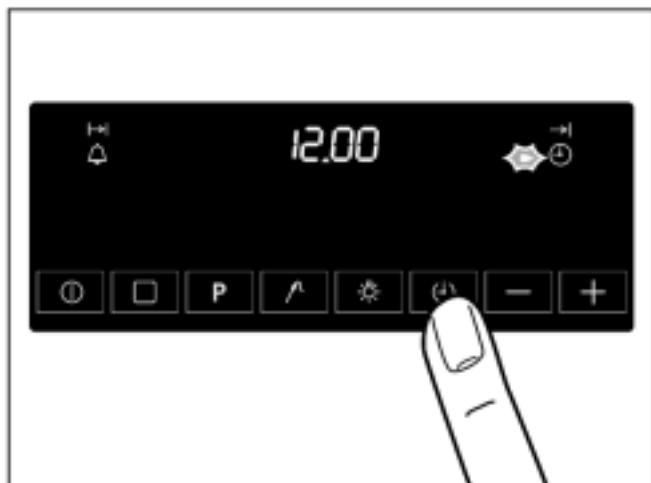
When the set cooking time has elapsed, a signal sounds for 2 minutes, and the oven switches it-self off. In this example, 14:05.



Adjusting the Clock (12)

1. Press the clock functions button (6) as often as necessary, until the Time Display arrow flashes.
2. Set the current time using the + or - buttons.
3. After about 5 seconds, the arrow stops flashing and the clock shows the set time. The appliance is once more ready for use.

The clock can be adjusted only if the Child Safety device is not engaged, neither of the Cook Time (9) or End (11) functions is set, and none of the oven functions is set.

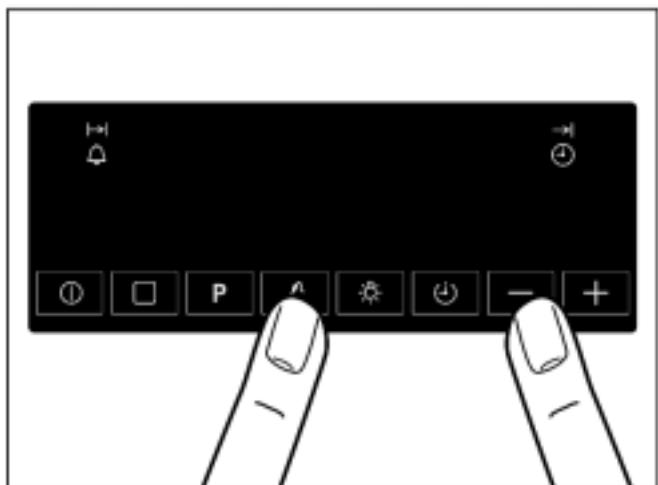


Other Functions

Between 22:00 and 6:00, the brightness of the display is automatically reduced.

1. If required, switch off the appliance using the main power switch (1).
2. Press the meat probe button (4) and the button - at the same time for as long as necessary, until the display goes out (about 2 seconds).

As soon as the oven is switched on again, the display comes on automatically. When the appliance is switched off again, the clock display goes out again. To have the clock display on permanently again, you must set the clock again.



Switching on the clock display

1. If required, switch off the appliance by pressing the main power switch (1).
2. Press the meat probe button (4) and the button - at the same time for as long as necessary, until the display goes out (about 2 seconds).

Child Safety Device

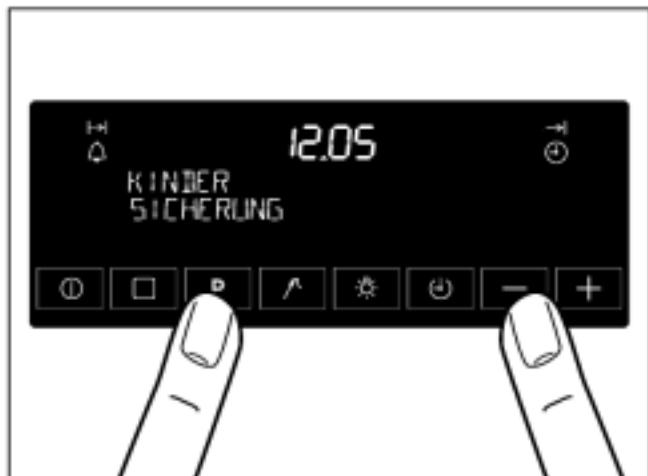
As soon as the child safety device is engaged, the oven cannot be switched on.

Activating the child safety device

1. If required, switch on the appliance by pressing the main power switch (1). No Oven Function must be selected.
2. Press and hold the Programme (3) and - buttons at the same time, until CHILD SAFETY appears on the display field. The child safety device is now engaged.

Releasing the child safety device

Press and hold the Programme (3) and - buttons at the same time, until CHILD SAFETY disappears from the display field. The child safety device is now released and the oven is again ready for use.



Button Lock

To ensure that oven functions set are not accidentally altered.

Setting the Button Lock

1. If required, switch on the appliance by pressing the main power switch (1).
2. Select the oven function.
3. Press and hold Programme (3) and - buttons at the same time for about 2 seconds, until PROGRAMME LOCK appears in the display. The button lock is now engaged.



Releasing the Button Lock

Press and hold Programme and buttons at the same time for about 2 seconds. The button lock is automatically lifted, if the appliance is switched off.

Programmed Functions and Recipes

The appliance has 12 programmed functions and recipes, which can be selected one after the other using the Programme button.

6. Technical equipment / General hints

6.1 Oven Safety Cut-out

If not switched off after a certain time, or if the temperature is not modified, the oven switches off automatically. The last temperature set flashes in the temperature display and an audible signal sounds.

The oven switches off when the oven temperature is:

30 - 120°C	after	12.5 hours
120 - 200°C	after	8.5 hours
200 - 230°C	after	5.5 hours

Switching on after a safety cut-out

Switch the oven off completely. It can then be switched on again.

6.2 Measures to prevent wrong electrical connection

400 V Recognition with appliances with 230 V rated voltage

- 400 V are recognized by the micro-processor
- Micro-processor switches to error mode
- Bad connection is shown on display by error code F7
- No heating element is energized
- During this time the oven can be correctly connected
- if connection is correct all functions will be normal

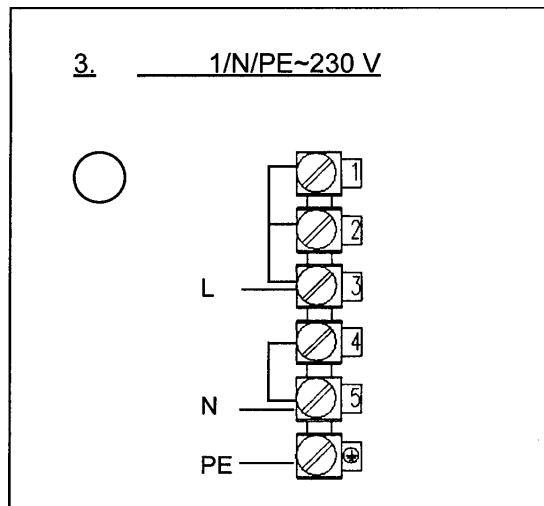


Fig. Connection

7. Fault diagnosis/What to do if ...?

7.1 Fault codes

Display	Fault	Action
F0	Internal Powerboard Error	Replace electronic system.
F0	No alarm	None
F1	Door cannot be locked.	Check door lock.
F2	Door cannot be unlocked.	Check door lock and unlocking thermostat f11.
F3	Checksum error	Make a mains reset by separating the appliance from the main and starting it again.
F4	Temperature sensor without contact or short-circuit.	Check temperature sensor, replace, if necessary.
F5	Sticking heater relay contacts at power board.	Replace electronic system.
F6	Power board has too high a temperature	Check installation situation of air duct and cooling fan for proper functioning.
F7	Wrong electrical connection	Connect appliance correctly and start it again.
F8	No connection between power board and interface	Replace electronic system.
F9	Micro processor resets automatically (Reset).	Carry out a mains reset by separating the appliance from the main and starting it again.

7.2 What to do if ...

Fault	Possible cause	Remedy
The oven will not heat.	The oven has not been switched on.	Switch the oven on.
	The correct time has not been set.	Set the correct time.
	The required settings have not been made.	Check the settings.
	The oven's safety fuse has been tripped.	Check the safety fuse.
	The fuse in the domestic wiring system (fuse box) has been tripped.	Check the fuse. If the fuses are tripped repeatedly, please call a qualified electrician.
"F 9" appears on the display.		Press the mains button.
The oven is not heating up, and the function display is operating. A small arrow will light up.		Set the oven function to ZERO. Do not switch off the oven. Press and hold down the three centre buttons simultaneously until a signal can be heard.
The oven light will not come on.	The bulb has blown.	Replace the bulb (see Care and Cleaning).

7.3 Measuring the temperature sensor

If a failure at the temperature sensor is assumed, the resistance can be checked by means of an ohmmeter.

The resistance of the temperature sensor should be 500 – 600 ohms at room temperature.

Make sure to measure the insulation resistance between the metallic housing and each connection terminal.

The resistance should be higher than 2 MOhms.

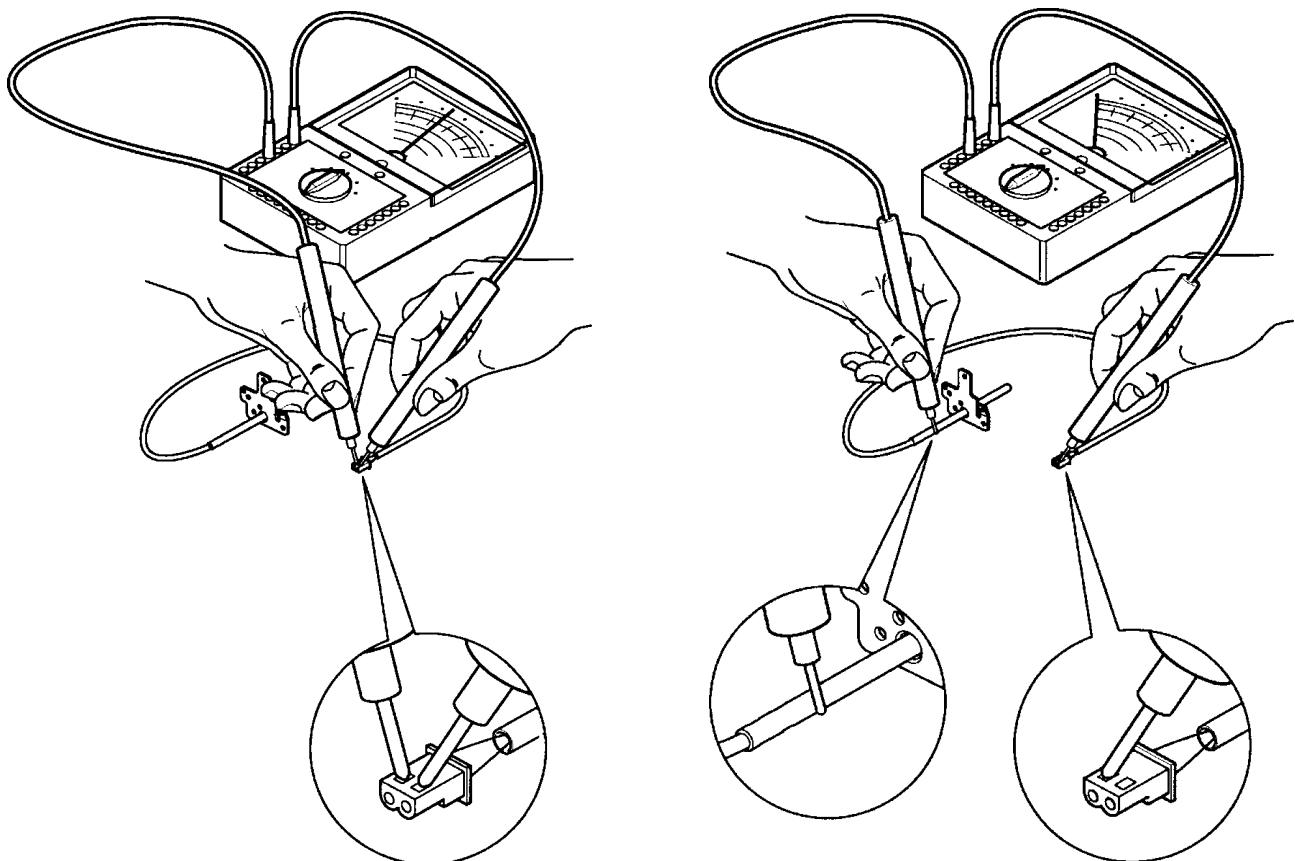


Abb. Measuring the temperature sensor

Demo Mode

Activating the demo mode

1. Turn on appliance (1)
2. Press keys (3), (4) and (7) simultaneously for 5 seconds -
 - audible signal goes off
 - Demo Modus is active

Status:

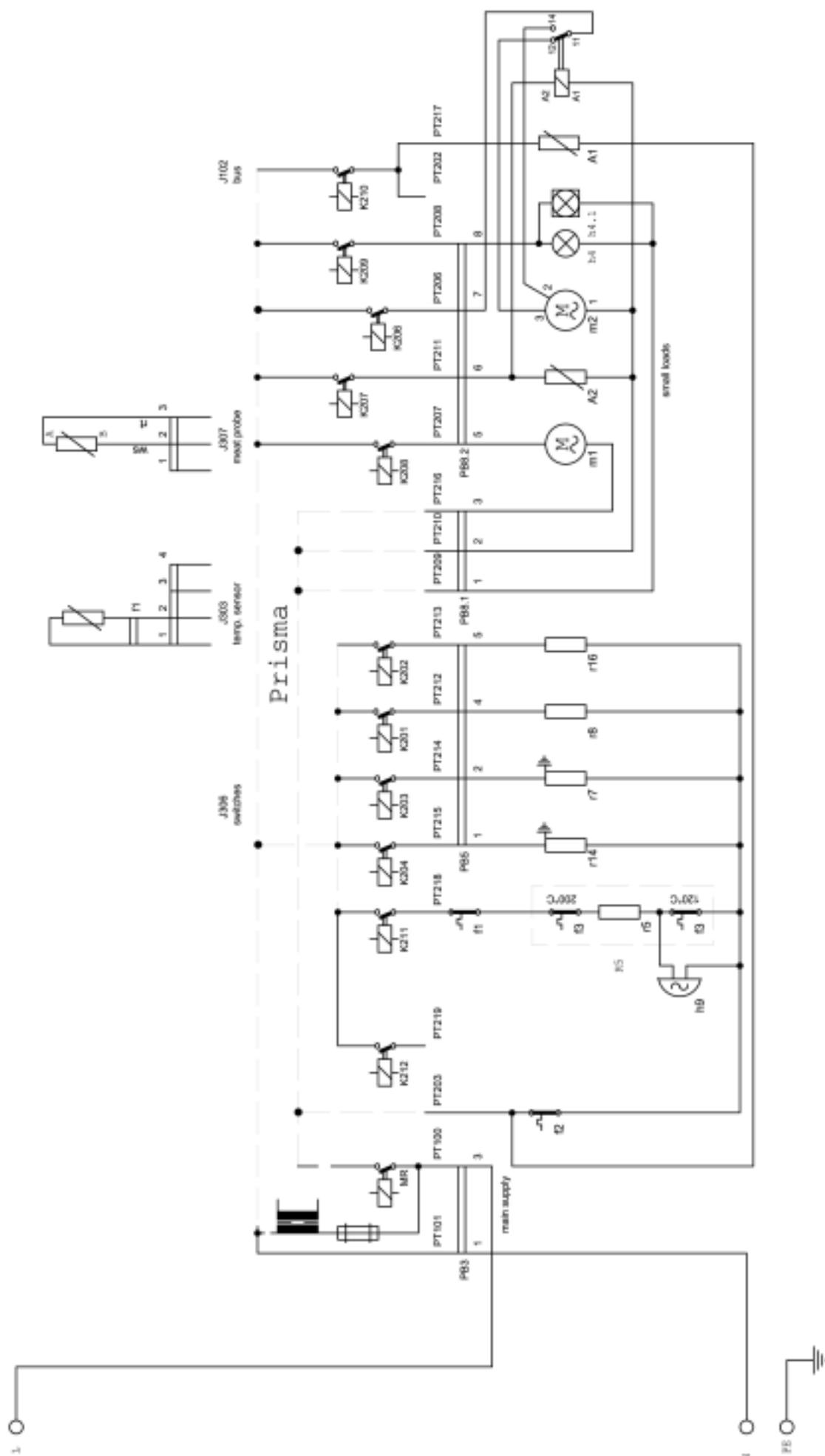
The appliance can be fully operated but is not powered

Deactivating the demo mode

To deactivate the demo mode, keep the appliance turned on and proceed in the same way as with activation.



8. Wiring diagrams



9. Service tips

9.1 Removing the two-part housing cover

Loosen the two right and left mounting bolts.

Lift front half of cover.



9.2 Removal of the switch panel

Pull the clipped grip out of the water drawer.



The switch panel is retained by two springs, one on the right and another on the left side of the panel support.

Take the switch panel in your hands by its left and right side and draw off horizontally to the front.



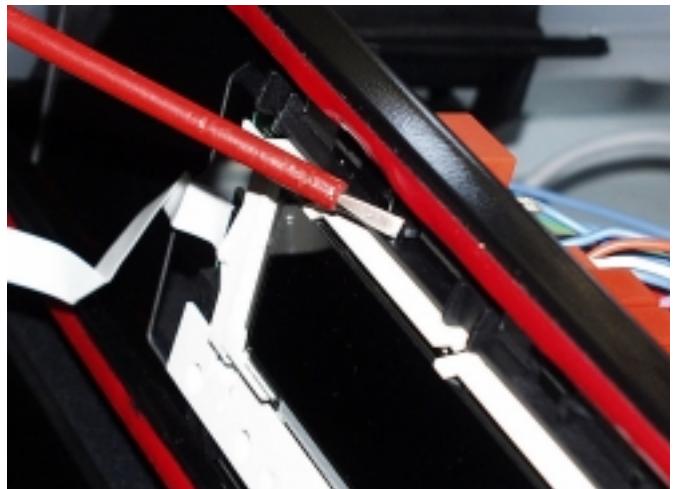
Please do not forget to draw off the ribbon cable – connection Interface + affixed Sensor Keys.



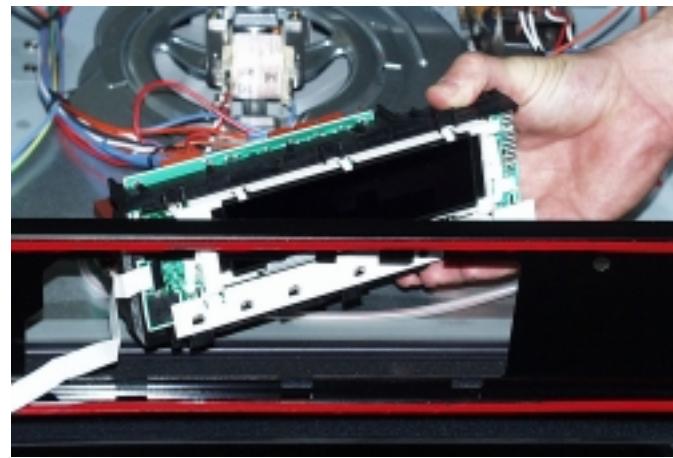
9.3 Removal of the Prisma High Control Unit

The Prisma High Control Unit is suspended in the panel support and is kept in position by a catch hook on the upside.

Release catch hook



Move Prisma High Control Unit to the right
(viewed from the front).



Pull off wires and take out the electronics unit.

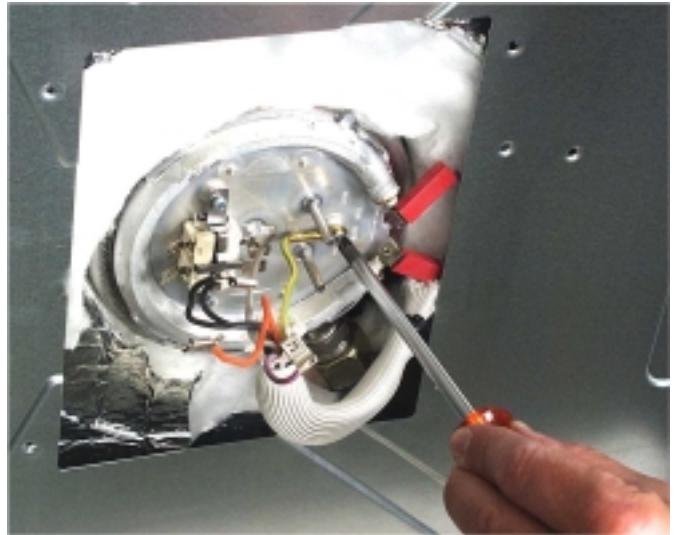


Move Prisma High Control Unit to the right
(viewed from the front).

Pull off wires and take out the electronics unit.

Located at the oven base is a service opening for steam generator removal, which can be opened by unscrewing the four fastening screws.

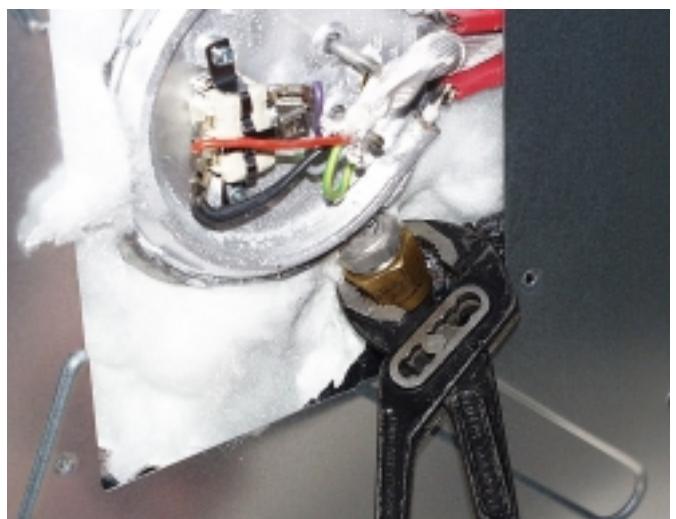




Detaching the protective conductor connection and removal of the lines of the two klixons and the heating element.



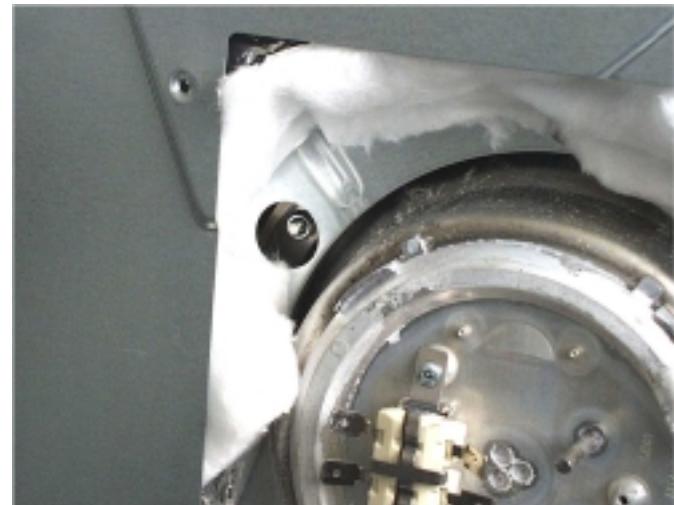
Detaching the water intake at the steam generator.



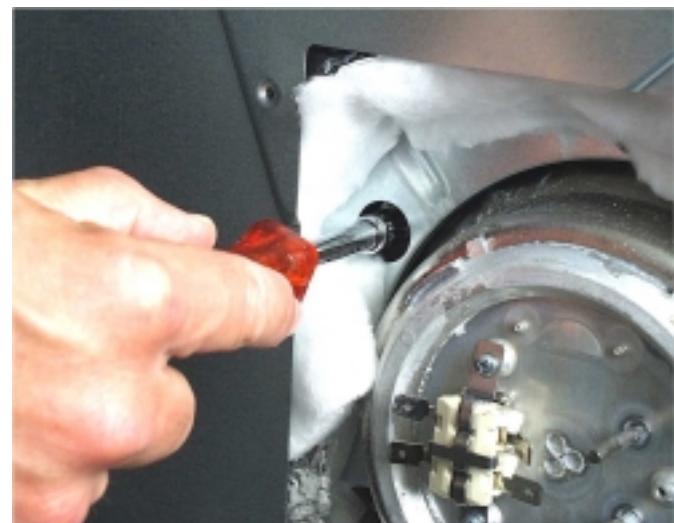
Removal of the two klixons by unscrewing the upper and lower fastening screws.



Six bore holes are provided in the oven muffle six through which the threaded pins mounted on the steam generator are inserted. The steam generator is fixed in position by a hole ring and six hexagonal nuts.



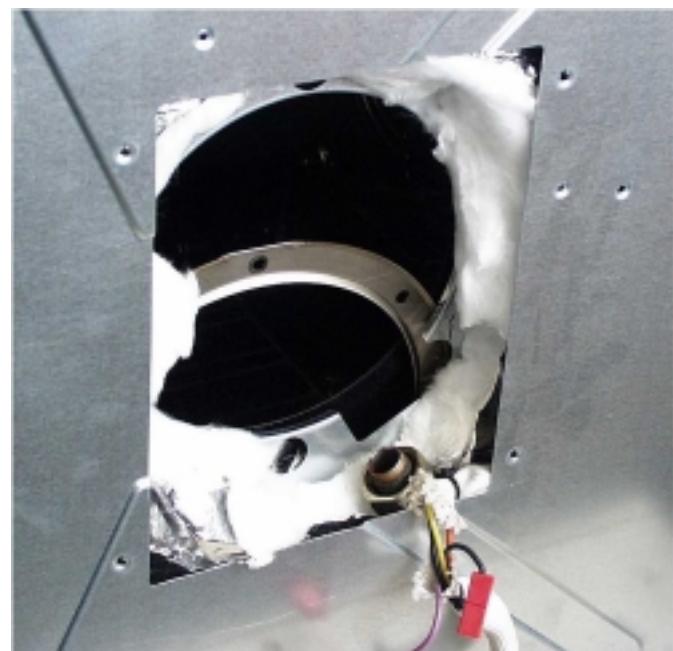
Unscrew the six fastening screws.



Place a purposeful knock with the rubber hammer against the steam generator base to loosen the tight seat.



Now you can remove the steam generator towards the oven inside.



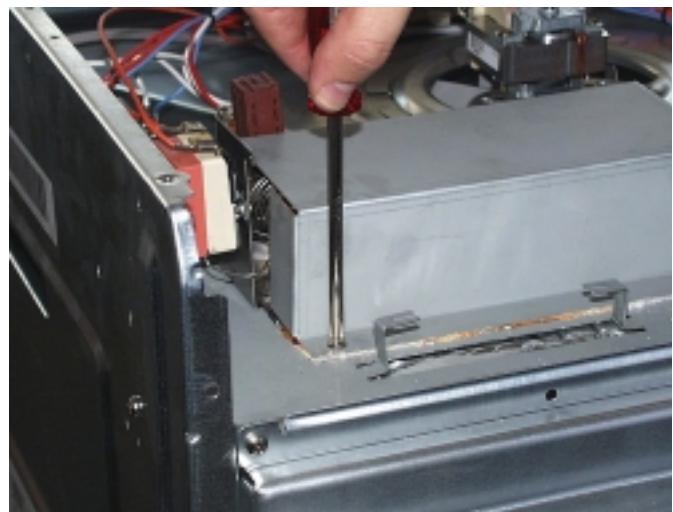


9.6 Dismounting the thermal sensor / steam thermostat

Protective cover removal

The thermal probe is located under the cover.

After removing the cover, you can pull the thermal probe with rubber collar out by lifting it out of the retainer.



9.7 Other information

- It is recommended wearing protective gloves for all mechanical work on sharp-edges metal sheets to prevent injuries.
- If you are supplied with a spare part set with new sealings when replacing defect component parts, it is compulsory to replace these sealings too.
- Only specialised technicians may install the appliance (mounting and power connection).
- Proceed with utmost care when opening the oven door to check the food during steam boiling, since hot and moist steam comes out of the open door.

Warning! Keep to safety precautions when intervening on the appliance.

9.8 ESD - Electrostatic Discharge and its effects to the control system

Since the control unit interface is in the open, the customer service technician must make sure on any repair work to initiate **equipotential bonding by touching the appliance housing** in order to neutralise any charges and prevent the control unit from damage. The same must be done on the service control unit which should be removed from its ESD protection film only after doing equipotential bonding on the appliance before installing the unit.

Note:

It is not important to know about the theories of charging and discharging process – these are not interesting here. But the practical effects should be known. We see (sense) them every day if there is equipotential bonding on gripping a door handle.

What happens during equipotential bonding with the semi-conductor component parts (element of an electronic subassembly)?

Charge equalisation is by the inner structures of the component part. The component will not be destroyed immediately; but possible later failures due to damaged inner connections which only occur after loading by temperature or power are much more unpleasant.

On the one hand, almost all sensitive semi-conductor elements (MOS circuits, for instance) have been improved by integrated safety measures, on the other the inner structures of such parts are today much smaller than some 10 years ago, and this will increase sensitivity again.

Warning:

Which of the component parts are at risk on service interventions?

All subassemblies provided with control inputs (door switches, food thermometre, ...) open strip conductor and freely accessible processors.

Practical examples:

- Switch clocks with inputs for food thermometres and door switches
- Switch clocks whose control processors could be touched (housing only forms a half shell for cost reasons)
- WOEC control unit